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QUIZZES

Practice Test-1 (Homeostasis)



10 Questions



7 min

Topics

Mechanism of Homeostasis (Receptors, Control center, Effectors), Osmoregulation, Nitrogen containing excretory products

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Start Quiz

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1/10



7 min



Hint

Q : Detection of change and signaling for effector's response to control system is:

A

Homeostatic mechanism

B

Feedback mechanism

C

Precursor mechanism

D

Hormonal mechanism

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2/10



7 min



Hint

Q : The protection of internal environment from the harms of fluctuations in external environment is termed as:

A

Osmoregulation

B

Homeostasis

C

Negative feedback

D

Haemopoiesis

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3/10



7 min



Hint

Q : The mechanism of regulation, generally between organism and its environment, of solute and the gain and loss of water is:

A

Osmoregulation

B

Homeostasis

C

Thermoregulation

D

Excretion

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4/10



7 min



Hint

Q : Osmoregulation is the regulation of:

A

B

C

D

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4/10



7 min



Hint

Q : Osmoregulation is the regulation of:



Water only



Organic solutes only



Inorganic solutes only



Water, organic & Inorganic solutes

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5/10



7 min



Hint

Q : It is central requirement for survival of all organisms:



Reproduction



Photosynthesis



Homeostasis



Locomotion

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6/10



7 min



Hint

Q : Thermoregulation is maintenance of temperature:

A

At fixed point

B

In a wide range

C

According to external temperature

D

Within tolerable range

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7/10



7 min



Hint

Q: If a cell is placed in hypotonic external environment, then there will be:

A

Entry of water into the cell

B

Entry of salts into the cell

C

Concentration of cell solution

D

Dilution of external environment

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8/10



7 min



Hint

Q : _____ have adaptations for the reduced rate of transpiration.

A

Hydrophytes

B

Mesophytes

C

Halophytes

D

Xerophytes

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Q. Some xerophytes during the driest season, shed their leaves to

- ☐ Restrict transpiration partially
- ☐ Restrict transpiration completely
- ☐ Promote transpiration partially
- ☐ Promote transpiration completely

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Q. If 1000 ml water is required to remove N_2 in the form of ammonia then how much water will be required to remove same quantity of N_2 in the form of urea

- ☐ 50 ml
- ☐ 100ml
- ☐ 500ml
- ☐ 200ml

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Question

Q. Detection of change and signaling for effector's response to control system is



Homeostatic mechanism



Feedback mechanism



Precursor mechanism



Hormonal mechanism

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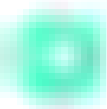
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The target of homeostasis is to maintain the internal environment within a narrow range and it is mostly done through feedback mechanism in which response is initiated or modified by detecting changes by receptors or effectors

Q The protection of internal environment from the harms of fluctuations in external environment is termed as



Osmoregulation



Homeostasis



Negative feedback



Haemopoiesis

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The maintenance of internal environment from harms of the fluctuations of external environment is done by removing wastes maintaining body temperature and concentration of salts and water.



Question



Answer

Q The mechanism of regulation, generally between organism and its environment of solute and the gain and loss of water is



Osmoregulation



Homeostasis



Thermoregulation



Excretion

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Homeostasis involves regulation of temperature regulation and removal of wastes and osmotic regulation of body by maintaining salt and water concentration





Question



Answer

Q Osmoregulation is the regulation of



Water only



Organic solutes only



Inorganic solutes only



Water, organic & inorganic solutes

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Osmoregulation is the maintenance of osmotic balance in a body which involves regulating water and solutes



Question



Answer

Q. It is central requirement for survival of all organisms



Reproduction



Photosynthesis



Homeostasis



Locomotion

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It is most important of the survival of an organism to maintain its internal environment in its narrow range so that all of the body parts keep working



Question

Q Thermoregulation is maintenance of temperature



At fixed point



In a wide range



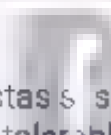
According to external temperature



Within tolerable range

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Homeostasis is the maintenance of internal environment of body within a tolerable range



Question



Answer

Q. If a cell is placed in hypotonic external environment then there will be



Entry of water into the cell



Entry of salts into the cell



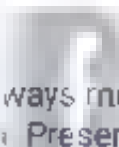
Concentration of cell solution



Dilution of external environment

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Water always moves from higher water potential to lower water potential. Presence of solutes decreases water potential.



Q. Which of the following plants

Q. _____ have adaptations for the reduced rate of transpiration



Hydrophytes



Mesophytes



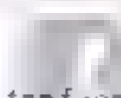
Halophytes



Xerophytes

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Xerophytes face extreme scarcity of water so they are adapted to prevent water shortage. They have needle like leaves with waxy cuticle, stomata in lower epidermis and in depression.

Q Some xerophytes during the driest season, shed their leaves to

- ☐ Restrict transpiration partially
- ☒ Restrict transpiration completely
- ☐ Promote transpiration partially
- ☐ Promote transpiration completely

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Xerophytes face extreme scarcity of water so they are adapted to prevent water shortage by reducing transpiration. During driest conditions, they shed their leaves to reduce rate of transpiration.

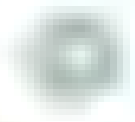


Question



Answer

Q. If 1000 ml water is required to remove N_2 in the form of ammonia then how much water will be required to remove same quantity of N_2 in the form of urea



50m



100m



500m



200ml

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Explains it all



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Removal of urea requires ten times less water than it is required to remove equal amount of ammonia

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QUIZZES

Practice Test 2 (Hornedsteak)

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Q. Bilirubin is produced as a result of breakdown of



Proteins



Nucleic acids



Protein part of hemoglobin



Non-protein part of hemoglobin

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SAEED MDCAT TEAM



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Q Primary structures for eliminating waste products in our body are

- ☐ Liver & pancreas
- ☐ Kidneys & skin
- ☐ Intestine & lungs
- ☐ Liver & kidneys

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Q. Weight of kidneys accounts for less than _____ of the total body weight



1%



2%



10%



20%

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SAEED MDCAT TEAM



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Q. Previously employed procedure to remove kidney stones is

- ☒ Lithotripsy
- ☐ Surgery
- ☐ ESWL
- ☐ Dialysis

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Q. These are specifically instrumental in the production of concentrated urine

- ☐ Cortical nephrons
- ☐ Juxamedullary nephrons
- ☐ Collecting ducts
- ☐ Renal pelvis

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Q. Lithotripsy is involved in removal of stone from kidney through

- ☐ Surgery
- ☐ Radiations
- ☐ Medicines
- ☐ Diagnostics

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Q. Point out the correct option

- ☐ Bat – Heterotherms
- ☐ Flying insects – Ectotherms
- ☐ Frog – Endotherms
- ☐ Humming bird – Endotherms

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Q. Which of the following has main role in homeostasis of body temperature?

- ☐ Kidneys
- ☐ Skin
- ☐ Lungs
- ☐ Bones

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Q Renal corpuscles can be divided into

- ☐ Arteriole and glomerulus
- ☐ Arteriole and Bowman's capsule
- ☐ Renal pyramids Afferent and efferent arteriole
- ☐ Bowman's capsule and glomerulus

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Q Which of the following represent capillary network of nephrons?



Bowmans capsule & glomerulus

—



Proximal & distal convoluted tubules

—



Afferent & efferent vessels



Glomerulus & vasa recta

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Question



Answered

Q Bilirubin is produced as a result of breakdown of



Proteins



Nucleic acids



Protein part of hemoglobin

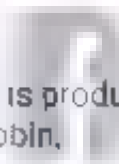


Non-protein part of hemoglobin

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Bilirubin is produced due to metabolism of heme group of hemoglobin.



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Question

Q Primary structures for eliminating waste products in our body are



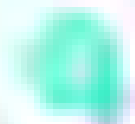
Liver & pancreas



Kidneys & skin



Intestine & lungs



Liver & kidneys

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Primary waste product from the formation of urea which is produced through urea cycle



Question



Answer

Q Weight of kidneys accounts for less than _____ of the total body weight



1%



2%



10%



20%

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Weight of human kidneys counts less than 1% of the total body weight while receives 20% of blood supplies with each cardiac beat

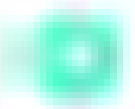


Correct

Q These are specifically instrumental in the production of concentrated urine



Cortical nephrons



Juxtamedullary nephrons



Collecting ducts



Renal pelvis

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The nephrons which have loop of Henle extended deep into medulla will be involved in the formation of concentrated urine because of concentrated interstitial surroundings.



Correct

Q. Previously employed procedure to remove kidney stones is



Lithotripsy



Surgery



ESWL



Diagnosis

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Modern technology has replaced the conventional methods of surgery



Question



Which is correct

Q. Which process is involved in removal of stone from kidney through



Surgery



Radiations



Medicines



Dietary

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High concentration of ultrasonic or ultrasound are directed from a machine outside of the body to the stone inside. The shock waves break the stone in tiny pieces or into sand which are passed out of the body through urine.



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Correct



Unattempted



Incorrect



7/10

Q : Point out the correct option:



A Bat – Heterotherms



B Flying insects – Ectotherms



C Frog – Endotherms



D Humming bird - Endotherms

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Explanation



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Heterotherms are those animals which are capable of varying degrees of endothermic heat production but generally do not regulate their body temperature within a narrow range. For example bats, humming birds etc.



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Correct



Unattempted



Incorrect



8/10

Q : Which of the following has main role in homeostasis of body temperature?



Kidneys



Skin



Lungs



Bones

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Explanation



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Body temperature when increased is brought back to normal by evaporative cooling and a decreased body temperature is dealt with preventing peripheral heat loss.



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Correct



Unattempted



Incorrect



9/10

Q : Renal corpuscles can be divided into:



A Arteriole and glomerulus



B Arteriole and Bowman's capsule



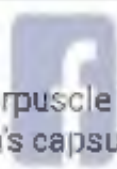
C Renal pyramidsAfferent and efferent arteriole



D Bowman's capsule and glomerulus

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Renal corpuscle is involved in filtration of blood (Glomerulus + Bowman's capsule).



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Correct



Unattempted



Incorrect



10/10

Q : Which of the following represent capillary network of nephrons?



Bowman's capsule & glomerulus



Proximal & distal convoluted tubules



Afferent & efferent vessels



Glomerulus & vasa recta

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Explanation



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Blood enters renal corpuscle by afferent arteriole which divides into capillaries and leaves via efferent arteriole which further divides and subdivides into capillaries that supply blood to the tubular parts of nephron.